Approval Number: AIR 02-208 **NOC ID: 350**

DEPARTMENT OF HEALTH
RADIOACTIVE AIR EMISSIONS
LICENSE AMENDMENT FOR

PROJECT TITLE: ADDITION OF 200 AREA EFFLUENT TREATMENT FACILITY (ETF) LOAD-IN

STATION FILTER SKID
Date Approved: 22-Feb-02
Emission Unit Name: ETF LOAD-IN STATION FILTER SKID

This is a MINOR, FUGITIVE, non-point source emission unit.

This emission unit requires the following Abatement Technology:

Applicable Requirements: ALARACT [WAC 246-247-040(4)] **None**
BARCT [WAC 246-247-040(3)]

Zone or Area:	Abatement Technology	Required # of Units	Additional Description/Conditions

Additional abatement technologies required by this Notice of Construction will be listed in the Conditions and Limitations section.

This emission unit has the following Monitoring and Sampling Requirements:

Applicable Requirements: Monitoring, Testing and Quality Assurance WAC 246-247-075

Regulatory Requirements	Monitoring and Testing Procedure	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Hanford Site Near-Facility Environmental Monitoring Ambient Moni program		During operation of filter skid.

Sampling Requirements: Monitors N498, N499, N972, and N999

Additional monitoring or sampling requirements established by this NOC will be listed in the Conditions and Limitations section.

Change History

12/18/2001 Revision form submitted and approved to allow tanker certification testing. Conditions and Limitations, AIR 02-208, mailed on February 22, 2002 to reflect new standard conditions.

03/31/1999 Original NOC approved via short form dated March 31, 1999.

CONDITIONS AND LIMITATIONS

1) The U.S. Department of Energy shall comply with all Conditions and Limitations of this license (WAC 246-247-060(5)).

2) The total abated emission limit for this Notice of Construction is limited to 1.49E-03 mrem/year to the Maximally Exposed Individual. The total unabated emission limit for this Notice of Construction is limited to
1.49E-03 mrem/year to the Maximally Exposed Individual.

3) **This process is limited to:**
adding a new and distinct point of emission to the ETF Load-In Station. The distinct point of emission, located
outdoors, will not result in an increase in the overall emissions from the ETF including the ETF Load-In Station.
The 200 Area ETF was designed and constructed to be a flexible wastewater treatment facility, and to

provide

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4)**The Annual Possession Quantity is limited to the following radionuclides (Curies/year):**

Cs	137	3.89E+01
Sr	90	9.87E+01

5)**This condition was obsoleted on 1/30/02.** Periodic confirmatory measurements to verify low emission shall use the Hanford Site Near-Facility Environmental Monitoring program.

Original Condition/Limitation added via short form approval dated March 31, 1999.

6) Implement administrative controls based on a liquid sample analysis from the feed stream to allow no more than 824 curies pass through the filtration system in one year.

7) These Conditions and Limitations must be documented in an established procedure prior to starting activities granted by this approval (WAC 246-247-040-(5) and 246-247-060-(5)).

8) If this emission unit is not in compliance with the standards in WAC 246-247-040 during construction or operation, the department reserves the right to require modifications to bring it into compliance (WAC 246-247-060-(2)(d)).

9) The facility shall notify the department seven days in advance of any planned pre-operational testing of the emission unit's control, monitoring or containment systems. The department reserves the right to observe such tests (WAC 246-247-060(4)).

10)the Hanford Site with the capability to treat wastewater generated during the restoration of the site. The ETF The facility must be able to demonstrate that it has a quality assurance program compatible with applicable

treatment systems were designed to process a wide variety of low-level radioactive wastewater which also national standards (WAC 246-247-075(6)).

contain chemical constituents of concern. As well as the tanker-truck-receipts at the ETF Load-In Station,

11) The department retains the right to conduct stack sampling, environmental monitoring or other testing around this unit to assure compliance. If directed by the department, the facility must make provision for such testing (WAC 246-247-075(9) and (10)).

12) The facility must be able to demonstrate workers associated with this emission unit are trained in the use and maintenance of control and monitoring systems, and in the performance of associated tests and emergency procedures (WAC 246-247-075(12)).

13) The facility must be able to demonstrate the reliability and accuracy of emissions data and other test results from this emission unit (WAC 246-247-075(13)).

14) The Department reserves the right to inspect and audit all construction activities, equipment, operations, documents, data and other records related to compliance with the requirements of this chapter (WAC 246-247-080(1)).

15) The department may require an ALARACT demonstration at any time (WAC 246-247-080(1)).

16) The facility must meet all reporting and record keeping requirements of 40 CFR 61, Subpart H. (WAC 246-247-080(2)).

17) The facility shall report all measured or calculated emissions annually (WAC 246-247-080(3)).

18) The facility shall report to the department within 24 hours, any unexpected release of radioactivity, shutdown or other condition that, if allowed to persist, or lasts more than four hours, would result in the emission of radionuclides in excess of any standards or limitation in the license. Applicable standards (WAC 246-247-040) include unit specific emission limits (paragraph 5), the offsite dose standard (paragraph 1), BARCT (paragraph 3) or ALARACT (paragraph 4), whichever is applicable, or any limitation included in this approval (paragraph 5) (WAC 246-247-080(5)).

19) Prior to permanent shut down of an emission unit or completion of an activity, the permittee shall file a report of closure with the Department of Health. The report of closure shall include the date of the shutdown and indicate whether, despite cessation of operation, there is still a potential for radioactive air emissions and a need for any active or passive ventilation system with emission control and/or monitoring devices. An emission unit or activity will not be considered permanently shut down or completed until a report of closure is received and approved by Health.

Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shutdown or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity.

All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with WAC 246-247-080 (8). (WAC 246-247-080 (6))

20) The facility shall make available, in timely manner, all documents requested by the department for review. The facility shall allow the department to review documents in advance of an inspection. The facility shall allow access to classified documents by representatives of the department with the appropriate security clearance and a demonstrable need-to-know (WAC 246-247-080(10)).

21) The facility shall ensure all emissions units are fully accessible to department inspectors. In the event the hazards associated with accessibility to a unit require training and/or restriction or requirements for entry, the facility owner or operator shall inform the department, prior to arrival, of those restrictions or requirements. The owner closed containers have also been approved for receipt as a feed source. To increase the flexibility of the facility or operator shall be responsible for providing the necessary training, escorts, and support services to allow the for receiving wastewaters, it is allowed to modify the ETF Load-In Station to add a filtration system to allow the department to inspect the facility. At a minimum for unannounced inspections, such requirements or restrictions filtration of wastewater as it is received from tanker trucks and closed containers. The filtration unit, a filter skid must be told to inspectors to provide an opportunity for inspectors to meet those requirements prior to the

inspection (WAC 246-247-080(9)).

22) Diffuse/Fugitive emissions shall be monitored using the 200 Area near-field ambient air monitors. Sample collection and analysis shall follow that of the near field monitoring program. Analytical results shall be reported in the Annual Air Emissions Report. Any change to this near-field ambient monitoring program must be approved by the department.

23) A single, comprehensive Notice of Construction for the ETF facility (LERF Basins, ETF Facility, and ETF Load-In Station Filter Skid) shall be filed with the department within one year of this approval.

containing three filters and associated piping assembled as a single unit in a frame to provide ease of

installation,
represents a new emission point for radionuclides. Emissions may occur during filter skid installation and subsequent filter change-outs. Because the proposed unit would be added as a separate point of emissions at
the ETF, the ETF treatment train and emissions control monitoring equipment is not considered to be part of this

modification.

Waste solutions are received at the Load-In Station and transferred to either Liquid Effluent Retention Facility
(LERF) or ETF. The proposed ETF Load-In Station filtration system consists of three filter housings, each
designed to hold either bag or cartridge filters for filtration of liquids. The filter housings can be operated in
series or in parallel, with normal operation expected to be two housings operated in series. Typical filter rating is
5 microns, although different filter ratings may be used depending on the characteristics of the waste being
received. The capability to filter sump discharges prior to storage at the Load-in Station is also provided.

Each filter housing contains about 10 gallons of wastewater and waste solids. When solids buildup causes differential pressure across a filter housing to become excessive, the enclosed filters are replaced. The filtration
system is shut down, the system is vented by opening a quick release vent cap on top of each filter housing, and
solution in the housing is drained to the Load-In Station sump. The housing is then opened and the filters are
removed to a container for disposal. After filter change-out, the sump is emptied to the Load-In Station, LERF
or ETF